

10/ 091154

Cafc



Attorney Docket No. 60170USNP
U.S. Patent No. 6,759,576

FILING BY "FIRST CLASS MAIL" UNDER 37 § C.F.R. 1.8

I hereby certify that the following correspondence is being deposited with the United States Postal Service as "First Class Mail" with proper postage in an envelope addressed to: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 22, 2006.

- 1) Request for Certificate of Correction of Patent for Office Mistake (37 CFR 1.322(a)) (2 pages total)
- 2) Certificate of Correction – Form PTO-1050
- 3) Copy of the Response to Office Action dated November 6, 2003 (11 pages total)
- 4) Return Postcard

Melissa Hardy

Name



Signature

Certificate
SEP 29 2006
of Correction

OCT - 2 2006



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

U.S. PATENT NO.: 6,759,576

ISSUED: July 6, 2004

NAME OF PATENTEE: Zhang et al.

TITLE: ENHANCED POLLENIZER AND METHOD FOR INCREASING SEEDLESS
WATERMELON YIELD

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT
FOR OFFICE MISTAKE (37 CFR 1.322(a))

Attention Certificate of Corrections Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

1. Patentee requests issuance of a Certificate of Correction of Patent for Office Mistake Under 37 CFR 1.322(a) for the above-identified patent. Thus, Patentee encloses Form PTO-1050 for processing.
2. The errors listed in the issued patent in claims 1, 2, and 6 are correctly noted in the Patentee's Response to Office Action dated November 6, 2003 on page 3, a copy of which is enclosed.
3. Patentee believes there is no fee due for this submission. However, the Commissioner is hereby authorized to charge any fees deemed necessary to Deposit Account No. 50-1744 in the name of Syngenta Biotechnology, Inc.
4. Please send the Certificate of Correction to:

Edouard G. Lebel, Ph.D.
Syngenta Biotechnology, Inc.
3054 Cornwallis Road
Research Triangle Park, North Carolina 27709

OCT - 2 2006

Respectfully submitted,

Date: SEPTEMBER 22, 2006

A handwritten signature in black ink, appearing to read "Edouard G. Lebel", written over a horizontal line.

Edouard G. Lebel, Ph.D.

Agent for Patentee

Registration No. 43,742

Telephone: 919-765-5117

OCT - 2 2006

UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 6,759,576
APPLICATION NO.: 10/091,154
ISSUE DATE : July 6, 2004
INVENTOR(S) : Zhang et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

In claim 1, at line 30, delete "having been"

In claim 2, at line 33, delete "having been"

In claim 6, at line 44, delete "10th" and insert therefor "10th,"

MAILING ADDRESS OF SENDER (Please do not use customer number below):

Syngenta Biotechnology, Inc.
3054 Cornwallis Road
Research Triangle Park, NC 27709

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

OCT 1 - 2 2005

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Commissioner for Patents, Washington, D.C. 20231.

Laneisha C. Hayes
Type or print name

Laneisha C. Hayes
Signature

11-6-2003
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

ZHANG ET AL.

APPLICATION NO: 10/091,154

FILED: March 5, 2002

FOR: ENHANCED POLLENIZER AND METHOD FOR INCREASING SEEDLESS
WATERMELON YIELD

GROUP ART UNIT: 1638

EXAMINER: KUBELIK, A.

CONFIRMATION NO: 6017

ATTY DOCKET: 60170P1

Mail Stop _____
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REPLY UNDER 37 C.F.R. §1.111

Sir:

Responsive to the Office Action of May 20, 2003, Applicant respectfully requests reexamination and reconsideration of the above-identified application in view of the following amendments and remarks.

A Petition for Extension of Time for three months to November 20, 2003 is hereby requested pursuant to 37 C.F.R. § 136(a). Accordingly, please charge Applicant's Credit Card in the amount of \$950.00 for this Petition. A Credit Card Payment Form is enclosed for fee purposes.

New drawings and a Deposit Receipt for the seeds deposited in the instant application are submitted herewith. A Supplemental Information Disclosure Statement in accordance with 37 CFR § 1.56 is also submitted herewith.

OCT - 2 2003



IN THE SPECIFICATION

Please replace the 2nd paragraph of page 4 (DESCRIPTION OF THE DRAWINGS), which starts with “FIG. 1 is a photographic depiction” (lines 6-8) with the following:

FIG. 1 is a scanned image of a photographic depiction of a leaf of the enhanced pollenizer plant of the invention.

FIG. 2 is a scanned image of a photographic depiction of a leaf of the pollenizer referred to as Sangria™ that is currently used in commerce.

IN THE CLAIMS

Claims 33-36 and 48 have been cancelled without prejudice. Claims 28-29, 37-46, and 49 have been amended. New claims 50-56 are presented. No new matter has been added by way of amendment.

- 28) (currently amended) Seed of diploid watermelon line NO1F3203B, wherein representative seed of said line is ~~having been~~ deposited under ATCC Accession No: PTA-4856.
- 29) (currently amended) A diploid watermelon plant of line NO1F3203B, wherein representative seed of said line is ~~having been~~ deposited under ATCC Accession No: PTA-4856.
- 30) (previously presented) Pollen of the plant of claim 29.
- 31) (previously presented) An ovule of the plant of claim 29.
- 32) (previously presented) Fruit of the plant of claim 29.
- 33) – 36) (cancelled)
- 37) (currently amended) A method for producing triploid, seedless watermelon fruit, wherein the method comprises ~~comprising~~ the steps of:
- a) planting a field with rows of ~~evenly spaced~~ triploid watermelon plants;
 - b) inter-planting diploid ~~pollenizer~~ watermelon plant according to claim 29 within said rows of ~~evenly spaced~~ triploid watermelon plants after every 2nd, 3rd, 4th, 5th, 6th, 7th, 8th, 9th, or 10th triploid plants;
 - c) allowing pollination of said triploid watermelon plants by pollen of said diploid watermelon plant to obtain triploid, seedless watermelon fruit; and
 - d) harvesting said triploid, seedless watermelon fruit.

- 38) (currently amended) A method for producing triploid, seedless watermelon fruit, wherein the method comprises ~~comprising~~ the steps of:
- a) planting a field with rows of triploid watermelon plants;
 - b) planting said field with rows of diploid watermelon plants according to claim 29, wherein the rows of diploid watermelon plants are approximately one-third to two-third ~~one-half~~ the width of the triploid rows; and
 - c) allowing pollination of said triploid watermelon plants by pollen of said diploid watermelon plants to obtain triploid, seedless watermelon fruit.
- 39) (currently amended) A The method for producing triploid, seedless watermelon fruit according to claim 38, wherein the row of diploid watermelon plants are approximately one-half to two-thirds the width of the triploid rows.
- 40) (currently amended) A The method for producing triploid, seedless watermelon fruit according to claim 38, ~~further comprising the step of planting~~ wherein said rows of diploid watermelon plants are planted after every two triploid rows.
- 41) (currently amended) A The method for producing triploid, seedless watermelon fruit according to claim 38, ~~further comprising the step of planting~~ wherein said rows of diploid watermelon plants after every three triploid rows.
- 42) (currently amended) A The method for producing triploid, seedless watermelon fruit according to claim 38, ~~further comprising the step of planting~~ wherein said rows of diploid watermelon plants after every four triploid rows.
- 43) (currently amended) A method of increasing the yield of triploid, seedless watermelon plants, wherein the method comprises ~~comprising~~ the steps of:
- a) obtaining a ~~pollenizer~~ diploid watermelon plant according to claim 29 for pollenizing said triploid, seedless watermelon plants;
 - b) planting said pollenizer watermelon plant in a field of triploid watermelon plants;
 - c) allowing pollination of said triploid watermelon plants by pollen of said diploid watermelon plants to obtain triploid, seedless watermelon fruit; and
 - d) harvesting said triploid, seedless watermelon fruit.

- 44) (currently amended) A The method of increasing the yield of triploid, seedless watermelon plants according to claim 43, wherein planting of said pollenizer watermelon plant is at a ratio of approximately equal to or less than 1 pollenizer watermelon plant to 2 triploid, seedless watermelon plants.
- 45) (currently amended) A The method of increasing the yield of triploid, seedless watermelon plants according to claim 43, wherein planting of said pollenizer watermelon plant is at a ratio of approximately equal to or less than 1 pollenizer watermelon plant to 4 triploid, seedless watermelon plants.
- 46) (currently amended) A method for producing seeds of a watermelon plant, wherein the method comprises the steps of ~~comprising~~:
- a) growing in a field a the watermelon plant according to claim 29;
 - b) conducting pollination of said plant; and
 - c) harvesting seed of said plant.
- 47) (previously presented) The method according to claim 46, further comprising drying said seed.
- 48) (cancelled)
- 49) (currently amended) A method for producing a hybrid watermelon variety, wherein the method comprises the steps of ~~comprising~~:
- a) planting in a field a first and a second watermelon plant, wherein said first watermelon plant is ~~the~~ a male parent, wherein said second watermelon plant is ~~the~~ a female parent, and wherein said first or said second watermelon plant is ~~the~~ a watermelon plant according to claim 29;
 - b) conducting pollination; and
 - c) harvesting seed from said female parent, wherein said seed is seed of a hybrid watermelon variety.

- 50) (new) The method for producing triploid, seedless watermelon fruit according to claim 38, further comprising harvesting said triploid, seedless watermelon fruit.
- 51) (new) The method for producing triploid, seedless watermelon fruit according to claim 38, wherein the row of diploid watermelon plants are approximately one-third to one-half the width of the triploid rows.
- 52) (new) A method for producing triploid, seedless watermelon fruit, wherein the method comprises the steps of:
 - a) interplanting a diploid watermelon plant according to claim 29 and triploid watermelon plants in a field; and
 - b) allowing pollination of said triploid watermelon plants by pollen of said diploid watermelon plant to obtain triploid, seedless watermelon fruit.
- 53) (new) The method for producing triploid, seedless watermelon fruit according to claim 52, further comprising harvesting said triploid, seedless watermelon fruit.
- 54) (new) The method for producing triploid, seedless watermelon fruit according to claim 52, wherein said step a) comprises planting seed of a diploid watermelon line according to claim 28 in said field.
- 55) (new) The method for producing triploid, seedless watermelon fruit according to claim 52, wherein said step a) comprises planting seed of triploid watermelon plants in said field.
- 56) (new) The method for producing triploid, seedless watermelon fruit according to claim 52, wherein said step a) comprises planting seed of a diploid watermelon line according to claim 28 and seed of triploid watermelon plants in said field.

REMARKS

Applicants thank the Examiner for the thorough review of the application.

New drawings (Figs. 1 and 2) are submitted herewith to comply with the requirements of the Notice of Draftsperson's Patent Drawing Review attached to the Office Action of May 20, 2003. The objected photographs have been replaced with scanned images of better quality and the specification has been amended to reflect this.

Claims 33-36 and 48 have been cancelled without prejudice. Applicants expressly reserve themselves the rights to present the cancelled claims in a divisional or continuation application.

Claims 28-29, 37-46, and 49 have been amended.

The claims have been amended to address the Examiner's objections and rejections under 35 USC § 112, second paragraph.

Claim 37 has also been amended to better define the claimed invention, which does not require the triploid watermelon plants to be "evenly spaced". Support for the amendment is found for example at page 9, lines 14-15, of Applicants' specification.

No new matter has been added by way of amendment.

New claims 50-56 are presented.

Support for new claim 50, is found for example in claim 37 as originally filed and at page 3, lines 28-29, of Applicants' specification.

Support for new claim 51, is found in claim 38 as originally filed.

Support for new claim 52 is found for example at page 3, lines 22-23, and page 5, lines 15-16, of Applicants' specification. Support for new claim 53 is found for example in claim 37 as originally filed and at page 3, lines 28-29, of Applicants' specification..

Support for new claims 54-56 is found for example at page 4, lines 12-13, of Applicants' specification.

No new matter has been added by way of amendment.

Claim objections

The objections raised by the Examiner have been addressed by amendments to the claims. The Examiner's suggestions have been incorporated in claims 28-29, 37-46, and 49.

Step b) of claim 38 has been amended to recite "one-third to two-third". Support for the amendment is found at page 11, lines 6-13 (Example 5), of Applicants' specification. The recitation "one-half to two-third" in claim 39 falls within the range in amended claim 38, and it is submitted that claims 38 and 39 are now in proper dependent form. New claim 51, which is also dependent of claim 38, recites "one-third to one-half", which also falls within the range in amended claim 38.

Accordingly, it is respectfully submitted that the objections to the claims should be withdrawn.

Claim rejections - 35 USC § 112

Claims 28-49 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement

The following statement regarding the seeds deposit is provided below:

The undersigned agent of record states under his signature and registration number that the seeds deposited with ATCC under accession number PTA-4856 were deposited under the Budapest Treaty and that these seeds will be released irrevocably and without restriction or condition to the public upon issuance of a patent.

A copy of the deposit receipt for said seeds deposit is submitted herewith. It is noted that seeds of line NO1F3203B were deposited with ATCC under accession number PTA-4856 with the Identification Reference "SP-1", reflecting a change of designation of line NO1F3203B to its commercial designation "SP-1".

The undersigned agent of record also states under his signature and registration number that:

- a) during the pendency of the application, access to the invention will be afforded to the Commissioner upon request;
- b) all restrictions upon availability to the public will be irrevocably removed upon granting of the patent;
- c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or the enforceable life of the patent, whichever is longer;
- d) the viability of the biological material at the time of deposit will be tested (see 37 CFR 1.807); and
- e) the deposit will be replaced if it should ever become inviable.

Accordingly, it is respectfully submitted that the rejection should be withdrawn.

Claims 33-49 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite

The rejections raised by the Examiner have been addressed by amendments to the claims. The Examiner's suggestions have been incorporated in claims 37-38, 40-46, and 49.

In particular, claims 37, 38, and 43-45 now incorporate a step of "allowing pollination of said triploid watermelon plants by pollen of said diploid watermelon plant to obtain triploid, seedless watermelon fruit". Support for the amendment is found for example at page 5, lines 15-16, of Applicants' specification. It is respectfully submitted that the claims are now complete.

Accordingly, it is respectfully submitted that the rejections should be withdrawn.

Claim rejections - 35 USC § 102 - 35 USC § 103

Claims 28-49 stand rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103 as obvious over Elmstrom (US Patent 6,355,865, filed 26 May 1999)

Applicants respectfully disagree with the Examiner's rejection.

The Pollenizer 1 taught by Elmstrom was derived from a USDA germine, which was selfed for several generations (Elmstrom, column 7, lines 5-8). In contrast, watermelon line NO1F3203B claimed in the instant application was obtained by crossing watermelon OW824 and hybrid watermelon OW823 (page 6, lines 1-9, of Applicants' specification).

Accordingly, Pollenizer 1 taught by Elmstrom and watermelon line NO1F3203B of the instant application were obtained independently, one by self-pollination of a germine, the other by cross-pollination.

It is well-known in the art that through crosses between plants a large number of recombination events occur leading to infinite number of germplasm combinations. This renders it practically impossible to obtain the exact same line in two independent breeding programs (see for example Richards A.J., Plant Breeding Systems, Chapter 2, page 14, 4th paragraph, and page 17, 2nd paragraph, selected portions of said chapter being submitted herewith to the Examiner's attention).

Accordingly, it is respectfully submitted that diploid watermelon line NO1F3203B of the claimed invention is novel over Elmstrom.

Based on the teachings of Elmstrom, it would also not have been obvious to one skilled in the art to obtain diploid watermelon line NO1F3203B of the claimed invention. On the contrary, it is through specific selection among populations of watermelon plants obtained after the cross between watermelon OW824 and hybrid watermelon OW823 that diploid watermelon line NO1F3203B was identified (see for example page 6, lines 10-20, of Applicants' specification). Nothing in Elmstrom teaches or suggests breeding, identifying and selecting diploid watermelon line NO1F3203B of the claimed invention.

Consequently, it is respectfully submitted that the claimed invention is non-obvious over Elmstrom.

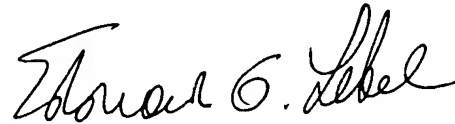
Accordingly, the rejection under 35 U.S.C. 102(e) or, in the alternative, under 35 U.S.C. 103 should be withdrawn.

In view of the above, it is respectfully submitted that all objections and rejections raised by the Examiner have been addressed, and that the application is now in condition for allowance. Early notice to this effect is solicited.

A Credit Card Payment Form is enclosed for the fee required for the three months extension of time. However, the Commissioner is also hereby authorized to charge any additional fees under 37 CFR §1.17, which may be required to maintain the pendency of the above application, to Deposit Account No. 50-1744 in the name of Syngenta Biotechnology, Inc.

If any additional information is needed or if, in the opinion of the Examiner, a telephone conference would expedite the prosecution of this subject application, the Examiner is invited to call the undersigned at (919) 765-5117.

Respectfully submitted,



Edouard G. Lebel, Ph.D.
Reg. No. 43,742
Agent for Applicants
Phone: 919-765-5117

Syngenta Biotechnology, Inc.
Patent Department
P.O. Box 12257
Research Triangle Park, NC 27709-2257

Date: November 6, 2003